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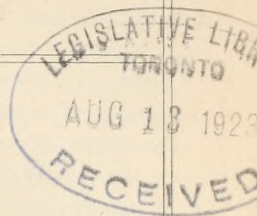
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BULLETIN, 1923, No. 17



EDUCATIONAL SURVEYS

By

EDWARD FRANKLIN BUCHNER
PROFESSOR OF EDUCATION, JOHNS HOPKINS UNIVERSITY

[Advance Sheets from the Biennial Survey of Education
in the United States, 1920-1922]



WASHINGTON
GOVERNMENT PRINTING OFFICE
1923



DEPARTMENT OF THE INTERIOR
BUREAU OF EDUCATION

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II



WASHINGTON
GOVERNMENT PRINTING OFFICE
1923

EDUCATIONAL SURVEYS.¹

By EDWARD FRANKLIN BUCHNER,

Professor of Education, Johns Hopkins University

CONTENTS.—Introduction—State and Territorial surveys—County and rural surveys—City surveys—Special phases in city surveys—Training of teachers for public education—Higher educational institutions—Foreign survey—Unpublished surveys.

INTRODUCTION.

In course of the years preceding 1918, the educational survey in the United States had passed through several phases. Each of these trends in the movement was apparently inevitable, and essentially experimental in discovering the possibilities and the limitations of this new instrument for measuring and promoting educational progress. The definition of community attitudes, the justification of the new expense involved, the value of a special, synthetic view of the facts in school systems, the propriety of "outsiders prying into home affairs," the provincialism that hesitated to be transformed into a nationalizing democracy, a more or less limping technique, and the absence of any established principles to guide in the formulation or the acceptance of proposals for betterment—all these were elements in educational surveying which must needs come to light amid the countercurrents of belief and doubt, friendliness and opposition. By repeated efforts, and even unrelated trials, the survey came in the course of these years to find itself validated as an acceptable agency of progress, both in lay and in professional judgments.

¹ This bulletin is the fifth report in the special series presenting a record of the educational survey movement. In the report of the Commissioner of Education for the year ended June 30, 1914, Ch. XXIV, vol. 1, pp. 513-562, and also June 30, 1915, Ch. XVIII, vol. 1, pp. 433-492, appeared the first two reports of school surveys in the United States. The educational inquiries and surveys, the reports of which, with two exceptions, had been published up to the close of each of the two years, respectively, were analyzed with reference to the place and time, the authorization, the details of the staff, the situation leading to the inquiry, the method and scope, and the fundamental problems investigated, with a summary of the more important findings and the recommendations.

The third report, appearing in the report of the Commissioner of Education for the year ended June 30, 1916, Ch. XXI, vol. 1, pp. 353-371, included those surveys of which the reports had been published during the year under review or were in process of publication, and listed those surveys the reports of which remained unpublished. The fourth report, issued as Bulletin, 1918, No. 45, (advance sheets from the Biennial Survey of Education in the United States, 1916-1918), presented an account of the surveys which had been published during the biennium 1916-1918, or were in process of publication, and listed those which it was expected would not be published. This fifth report is prepared with special reference to the biennium 1920-1922; but, for the sake of continuity with the material in the preceding reports, it includes the relatively few surveys made in 1918-1920. The surveys within each classified group are arranged in historical order. It is believed that this enables the reader to detect more readily the subtle changes which are appearing in the movement.

Then came the World War and the necessity of living somehow through the postwar conditions. Under such sensitized situations, the survey as an agency of progress was about the first to be lost sight of. The biennium of 1918-1920 was anything but prolific in school surveys. The few that were under way were carried forward to some sort of conclusion. As soon as school activities began to regrip themselves, special problems, created in part by the cessation of constructive efforts among schools during the war, emerged, with particular claims for attention. The survey was then called back, as it were, and the movement was resumed with vigor. There has since come a clearer picture of the changing conditions under which the schools of the Nation must proceed to do their work, with the demand for more manifest effectiveness.

The period of reconstruction tempered the movement, so that it now is less insistent on seeing speedy, wholesale changes, and proposes instead "a program" projected for fulfillment over a period of years. A new attitude has made its appearance on the part of individual surveyors and surveying agencies. The earlier attitude was to reveal a defective school situation, throw forward the survey results, and after decamping, leave it all with "the home folks" to treat as they pleased. The newer spirit expresses itself more uniformly in a conscious effort to see survey insights transformed into changed activities, to care for a "follow-up program," and to give such help as is needed in securing such new adjustments as will vindicate the efforts of the authorities and guarantee better opportunities for the children.

The continuance of the belief in the survey as an agency of educational progress and the full recovery of the movement after its war-time interruption are equally manifested by an increase in the number of reports appearing during the biennium of 1920-1922, and by the increase in the number of surveying agencies participating in this type of work. The United States Bureau of Education continues to set forth its firm belief, both by theory and by practice, that by conducting surveys and publishing reports it is discharging one of its main functions, in accordance with the creative act of 1867. The reorganization of the State Department of Education of Pennsylvania by which alone it was enabled to undertake one of the largest surveys completed; the undertakings of the George Peabody College for Teachers; the readiness of the departments of education in State universities to assist their constituent communities; the establishment of the Institute of Educational Research, with its division of field studies, at Teachers College, Columbia University, already engaged in surveys; and the recent announcement (December, 1922) by the General Education Board of its creation of a division of school surveys

which will extend the work already inaugurated—all indicate the larger task that remains to be done toward educational improvement and the spirit of communities to make progress when shown the way. The steady improvement in surveying technique which has appeared in connection with the contributions from researches in education will ere long not only enable but force us to grade surveys into classes as qualified by their respective types of performance.

STATE SURVEYS.

Delaware.—On April 14, 1919, the Governor of Delaware approved the new school code which had been adopted by the legislature of that State subsequent to the presentation of the report of the educational survey made by the General Education Board in accordance with the legislative act in 1917.² The topics covered in the survey included:

Its people and industries; the present school system; State board of education and commissioner of education; county school commissions and county superintendents; district school committees and boards of education; the teachers; the schools and their work; enrollment and attendance; financing the schools.

The description of conditions found to exist was carried forward in such a way as to indicate the nature of the changes that should be made, the recommendations being "designed to bring about, not an ideal state of affairs, but such improvements as are, at the moment, desirable and practicable," to the end that the State might "at once obtain an intelligently organized school system."

The school-plant situation in Delaware was analyzed and presented in detail in two reports, which were published by the Service Citizens of Delaware, in August and in October, 1919, the preparation of the reports having been made by Drs. George D. Strayer, N. E. Engelhardt, and F. W. Hart. They were intended as an incentive to the undertaking of a thorough rebuilding program.

Massachusetts.—On January 9, 1919, the special commission on education, which had been authorized by legislative action on June 1 preceding, presented to the legislature a report (Senate, No. 330, 1919, 197 pp.) of its investigation of the educational systems of the Commonwealth. The commission was called upon to make note of—

the support, supervision, and control of all educational institutions and undertakings maintained directly by the State, or jointly with cities, counties, and towns,

and to present—

its findings and recommendations as to the best methods and plans for the proper coordination of public education in the Commonwealth.

²Public Education in Delaware; with an Appendix Containing the New School Law. General Education Board, 1919. 202 pp

By means of numerous special hearings and conferences it came into possession of information and suggestions relating to these three main aspects:

What is Massachusetts doing educationally and how is she doing it? What ought Massachusetts to be doing educationally and how can she best do it? What money is necessary to do it and how can that money be raised?

The recommendations, expressed in appropriate bills submitted for legislative action, proposed:

Desirable changes in the curriculum; raising the school age; continuation, vocational, and trade schools; vocational guidance; physical education and medical inspection; evening schools; university extension; minor wards of the State; State certification of teachers; minimum salary, \$650, for teachers; annual school census; State attendance officer; distribution of school funds; education of the deaf and blind; education in correctional institutions; textile schools; normal schools; the agricultural college; greater flexibility in college entrance requirements; Americanization; reorganization of the State board of education; incorporation of educational institutions and degree-granting privileges; State director for school libraries; the care, construction, and repair of school buildings; fire prevention in schoolhouses; and powers and duties of school committees and superintendents of schools.

Alabama.—The time limit within which was completed the survey of educational conditions in Alabama, made under the direction of the United States Commissioner of Education,³ is especially interesting as showing how quickly a serious-minded people can learn, to a large extent, the exact conditions under which education is proceeding among themselves. Legislative authorization for this survey was completed on February 6, 1919, the field work begun on March 12 and completed on May 31, and on June 11, 1919, the report of the survey presented to the Alabama Education Commission. The prompt completion of "the task of making the scientific study of the entire public-school system of Alabama" was effected by the assignment, under the direction of Dr. H. W. Foght, of the unusually large number of 21 persons, distributed through the different divisions of the undertaking. A new feature in survey procedure appeared in this study, whereby an advisory committee of four representatives of various phases of higher education was associated with the regular staff of the Bureau of Education for the investigation of the higher institutions, thereby evidencing additional caution in the procedure of surveying. The exemplary thoroughness with which the hurried undertaking was completed is indicated by the wide scope of the topics selected for report:

Alabama, the land and the people; fundamental educational needs as indicated by character and resources; history of public education; organization of the State system of education; county supervision of schools; school population, enrollment, and attendance; the rural schools; some (9) typical counties; Negro education in rural Alabama; village and town schools; the district agricultural schools and county

³An Educational Study of Alabama. U. S. Bureau of Education, Bulletin, 1919, No. 41. 522 pp.

high schools; the city schools; institutions for defective, delinquent, and subnormal children; illiteracy and its eradication; special phases of home-economics teaching; health and physical education; home and school gardening; the teachers and their certification; preparation for public-school teachers in the State normal schools; higher education in Alabama; administration of higher education in Alabama; State support of higher education; financing the schools; what the State invests in public education.

The numerous recommendations of desirable changes growing out of the study of conditions are conveniently summarized in the last chapter.

Virginia.—The outstanding points of interest attached to the survey of public schools in Virginia are to be found in the demonstration of what happens to a system of education under a constitution which undertakes willingly to go into particulars in school matters, the happy outcome when public and private agencies and resources combine on a project of such large dimensions, and the survey benefits which arise from an effective organization of the enterprise itself. The Assembly of Virginia in 1918 authorized and provided an appropriation "for a careful study of school conditions in the State as a basis for report and recommendations to the assembly of 1920." The organization of the survey was based upon the decision—

that the best results could be obtained by having an eminent specialist in education from out of the State direct a field survey staff made up of Virginians acquainted with local sentiment and local conditions.

Dr. A. Inglis was appointed director, under whom were associated 10 division specialists, 22 special collaborators and members of the field staff, and 9 special consultants and advisors, constituting a total survey staff of 42 persons. The effective organization to accomplish the work of the staff in ascertaining the status and needs of education in Virginia is indicated by the organization of the following 11 divisions: Organization and administration, buildings and equipment, attendance and enrollment, course of study and instruction, teacher status and training, tests and measurements, Negro education, finances, physical education, vocational education, school organization.⁴ The extent of the very complete reorganization of public education in the State that was deemed necessary and desirable is indicated by 11 principal needs as follows: "Imperative"; the school term must be lengthened; an effective compulsory school law must be provided; grading and school organization must be improved; better trained teachers are needed; provision must be made for an expansion of the instructional program; consolidation must be increased; the school plant must be improved; better supervision must be provided for rural schools; State and local systems of administration must be changed; the financial support of public schools must be greatly

⁴ Virginia Public Schools. Part I, Reports of the Commission and the Survey Staff; Part II, Educational Tests. New York, World Book Co., 1921.

increased; the methods of raising and distributing school funds must be changed. Seven groups of constitutional amendments and 16 groups of amendments to school statutes are accordingly proposed.

The second volume of the report, *Educational Tests*, takes high rank in the literature of educational surveys and educational measurement, in many respects comparable to the volume on *Measurement of Classroom Products*, by S. A. Courtis, of the Gary public schools survey. The educational tests, made possible by the generous cooperation of the General Education Board, were carried out under the special direction of Dr. M. E. Haggerty, the data being collected in the early part of 1919. The Virginia survey becomes conspicuous because of the extensive rôle played by educational measurement, organized from the standpoint of a State situation, the chief ends of which were:

First, to measure by standard tests the results of instruction; second, to establish standards of accomplishment for certain educational conditions peculiar to the South and exemplified in Virginia; third, to stimulate teachers and others in the State to an increased interest in an understanding of the modern educational methods involved.

Over 16,000 different school children, with from 6 to 40 tests each, selected to represent various types of schools in different parts of the State, were tested in achievement and general mental ability. Pupils in all the grades from one to seven in city and in rural schools and in the first year of high-school work were given the following tests:

Reading: Thorndike reading scale, Alpha 2; Virginia reading test, Sigma 1; Virginia general examination, Delta 2, exercise 1.

Spelling: Ayres spelling scale.

Handwriting: Starch scale for measuring handwriting.

Arithmetic: Woody arithmetic scale, series B; Courtis standard arithmetic test, series B; Virginia general examination, Delta 2, exercise 2.

Composition: Nassau County supplement to the Hillegas composition scale.

Algebra: Hotz's first-year algebra scales, series A, addition and subtraction, equation and formula.

Mental abilities were studied by the psychological tests offered in the intelligence examination, Delta 2 (grades three to eight), information examination, Delta 1 (grades one and two), and an abbreviated form of the Stanford revision of the Binet-Simon tests. The investigation in high-school composition resulted in the construction of a new scale designated as the Virginia Supplement to the Hillegas Scale for the Measurement of Quality in English Composition (pp. 213-222).

California.—The forty-third session of the Legislature of California (April 26, 1919) created a special legislative committee—

whose duty it shall be to investigate * * * the plan of education in this State, and the regulations of schools, high schools, junior colleges, normal schools, technical schools, colleges and universities, and the cost of education, and to report their

findings in full to the forty-fourth session of the legislature and to make such recommendations in connection therewith as they deem of permanent benefit to the State.

The committee held sessions in different parts of the State and conducted hearings "to secure the attendance of representative of taxpayers' associations, labor unions, and laymen, as well as those directly interested in public education." The findings and conclusions of the committee were drafted by Dr. E. P. Cubberley into the final report (December 14, 1920). This inquiry shows an overshadowing influence of the Ayres index number, and addresses its attention to the five problems of State educational organization, county educational organization, the problem of teacher training, high school and junior college, and a better equalization of fund. The consideration of each resulted in specific recommendations, all of which may be put into operation by securing such legislation as will incorporate two amendments to the constitution and several new laws or revision of existing laws.

North Carolina.—The report growing out of the creation of a State educational commission by the general assembly, 1917, presents an interesting and attractive variation in the literature of education surveys. The work of the survey, which was undertaken by the General Education Board, with the help of all the school officials of the State, was completed in October, 1920, the findings and recommendations of the commission being presented to the general assembly in the year following. The story is given a forceful touch by the use of the editorial "we." On nearly every page the North Carolinian reader finds himself included in the recurrent "our public schools" this and that, and the publicity feature of surveys is given a new mode of expression. The first consideration is given to "the schools as they are," including educational progress, building and equipment, courses of study and length of school term, the teachers, and instruction. The "hindrances to development" were found to include administrative handicaps and limitations and conflicting developments. "The way out" is shown to be by means of better administration, better trained teachers, and better financial support. Five introductory pages of the report,⁵ by State Supt. E. C. Brooks, detailed the educational legislation which followed the chief recommendations growing out of the study.

Kentucky.—This is another State survey made under the now well-defined cooperation and constructive procedure of the General Education Board. The law under which the Kentucky Educational Survey Commission organized, on May 11, 1920, and proceeded with

⁵ Public Education in North Carolina: A Report to the Public-School Commission of North Carolina, Gen. Educ. Bd., New York, 1921. 137 pp.

the undertaking is a novel instance of the completeness of survey authorization, specifying as it does as a finable offense the conduct on the part of "any person who wilfully withholds records or information within his possession or obstructs the work of the commission in any way." Although the law required the employment of experts not residents of Kentucky, Dr. F. P. Bachman, local director, and his outside staff, enjoyed the active cooperation of educators in the State during the 15 months required to complete the work.⁶ The recorded data were derived from selected counties, graded school districts, and cities, thus offering extensive representative samplings as a means of arriving at a statement of the real situation in the Commonwealth as a whole. This survey is also interesting as being another instance of checking up a description of the existing conditions in the schools by appraising their efficiency. This was done by noticing pupil progress and by measuring pupil achievements. Tests were given between November and the mid-year in reading, spelling, arithmetic, and history, special selection being made of the fifth, seventh, and eighth grades of the elementary school, in order to rate Kentucky pupils in terms of accepted standards; and, in particular, to compare results in this State with those recently discovered in North Carolina and in Virginia. It was revealed that measurement and description were mutually corroborative.

The testing program included high-school pupils who were tested in reading and algebra, the purpose being to find out their particular abilities, and, particularly, to evaluate the work in the elementary school in qualifying children to do high-school work.

Arkansas.—It was owing to the earnest "desire to do something in a permanently constructive way that will give the children of Arkansas the advantages which they need and to which they are justly entitled" that Gov. J. C. McRae, in September, 1921, following the report of the study of educational conditions at the University of Arkansas (see below, Higher Educational Institutions, Arkansas), presented August 31, 1921, appointed an honorary educational commission of 28 citizens, which was directed to have a survey made which should include "the entire public educational system" of the State. The university survey "lacked much in practical effectiveness, because there was not at the same time a comprehensive statement of conditions in the whole public-school system of the State, of which the university is the head." In the absence of public money for this undertaking, "funds were provided by public subscription through the Forward Education Movement and the Arkansas Educational Association," the minimum being \$10,000. Thus was undertaken the third survey study in this State under the direction of the

⁶ Public Education in Kentucky: A Report by the Kentucky Educational Commission. Gen. Educ. Bd., New York, 1921. 213 pp.

United States Commissioner of Education. The survey staff of 16 members, under the direction of Dr. W. T. Bawden, included 12 persons from outside the Bureau of Education representing seven widely separated States. Most of the field work, representing 50 of the 75 counties, was done in November and December, and the report of the Commissioner of Education was made October 6, 1922.⁷ The significant features of education in the State are presented in this order:

Development of educational legislation in Arkansas, school revenues and finance, organization and administration, the teachers, the rural schools, urban and village schools, secondary education and the district agricultural schools, education for negroes.

The survey reveals numerous gaps in the development of educational facilities during the 48 years since the constitution of 1874, which throw light upon the low rating accorded the situation, and accordingly recommendations are made which would abolish the system of school districts and increase centralization by placing "upon the State the responsibility for equalizing educational facilities and opportunities, and school tax burdens, throughout the State." A 10-year program of public education is projected under a reorganized department of education which should secure a realization of these 11 objectives:

Unification of general control; determination of the objectives of the State system and program of education; definition of functions and responsibilities of the component parts of the State system of education; coordination of the activities of the various parts of the system; determination of the minimum standards which shall prevail from time to time; adequate financial support; preparation of an annual budget; selection, training, and certification of personnel; progressive development of education in the State; continuous study and advocacy of needed educational legislation; publicity, for the purpose of keeping the people informed as to the achievements, objectives, and needs of the schools.

The report introduces an interesting mode of using ratios to indicate either the relative position of education in a State or the magnitude of the "task ahead." "In order to bring school conditions in Arkansas up to the average of the 48 States," different school accomplishments must be achieved in different amounts, as, e. g., high school enrollment must be multiplied by two, investment in property must be multiplied more than threefold, the annual cost of education for current expenses per pupil enrolled must be increased threefold, and the cost of new buildings on the same basis increased more than one hundredfold. The attainment of these objectives is set up as the goal of the proposed 10 years' program. The honorary commission submitted the survey report "to the people for their frank and unbiased consideration" for discussion at the meeting on

⁷ The Arkansas Survey Report. (Abridged) Jour. of the Ark. Educa. Assoc., vol. 6, no. 3-4, July-October, 1922, 83 pp.

November 9 of the citizens' section of the State Educational Association, after which specific recommendations to the governor were to be formulated.

Oklahoma.—The report of the educational survey in this State reveals the extraordinary struggles, deflections, and checks encountered in the attempt to provide for and develop a real system of public education in one of our youngest Commonwealths. It comes as an instructive rebuke to an overweening confidence in the constructive power of chance imitation, as sprinkled with an assumed ever-present sufficient "common sense," as a reliable means of establishing and promoting educational facilities in an American State. In its discovery of startling inequalities, the survey shows almost unbelievable gaps between the existing situation and what should be as indicated in the scope of the suggestions and recommendations looking toward such reorganization and administration as will eventually bring the State near the level of the national average. Special interest in this study is due to the late entrance of the State into the Union (1907) and the complicated changes in its previous legal, economic, and social factors growing out of its triracial groups, the Indians, the whites, and the Negroes. No less a factor than the educational responsibility of the Federal Government makes its important showing in its relation to part of the existing situation. And, by duly taking heed of the chief results of this study, the State will be greatly advantaged by having had this survey so shortly after coming into Statehood.

Under legislative authorization in 1921 the educational survey commission requested the United States Commissioner of Education to arrange for and conduct the survey. Dr. W. T. Bawden directed the work of the staff, which included 10 from the Bureau of Education, 2 from other United States bureaus, and 11 from 7 States other than Oklahoma. Among the activities of the study were the educational tests and measurements of an aggregate of nearly 27,000 pupils (358 in Indian schools), grades 3 to 12 in most of the tests, which were spelling, reading, handwriting, English composition, arithmetic, algebra, and intelligence, given in April-May, and the field work in 46 of the 77 counties in October-November. The literature of educational finance receives a contribution in the chapter presenting the "problems of financing public schools," with its intensive study of 9 representative counties. The report,⁸ accompanied by a digest of 70 pages, presents its material in the following order:

Historical background; problems of financing public schools; financial and accounting procedure; organization and administration; higher education; the rural schools; village and city schools; education of Indians; education of Negroes; educational tests and measurements; summary of conclusions and recommendations.

⁸ Public Education in Oklahoma. Bureau of Education, Dec. 11, 1922, 420 pp.

"Equality in education is a brief but accurate statement of the supreme educational purpose of every State in our Union." Under this measure Oklahoma ranks among the upper quarter of the States in her ability to provide, but mostly in the lowest quarter in her school performances. The four "chief causes of this deplorable educational situation" are cited as:

A defective system of taxation; a system of school finance which makes it absolutely impossible to provide adequate school funds; the district system; and an unscientific method of apportioning the State funds, which ignores both the ability and the effort of the local units.

Complete reorganization, with centralization in an effective State board of education, based upon the county unit system, so as to put into effect a unified system, is the chief dependence relied upon in the series of recommendations formulated. The survey procedure necessarily varied with the traits of each of the several groups of school problems studied, and there is apparent some repetition. Any true survey, however, must go over its material at least twice. The succinct and trenchant mode of using ratios to popularize a sense of the work to be done to bring education forward, appearing in the Arkansas survey, reappears in this report:

In order to bring about approximate equality of educational opportunity as between independent districts and rural districts in the State, Oklahoma must immediately multiply the percentage of the rural population in high schools by 4. The percentage of high-school teachers working in rural districts must be multiplied by 3. The money per capita being spent for buildings and grounds in villages must be multiplied by $2\frac{1}{2}$, in consolidated districts by 4, in union graded districts by $2\frac{1}{2}$, and in rural ungraded districts by 5. The percentage of the enumeration in attendance must be raised 7 per cent in village districts, 10 per cent in consolidated districts, 12 per cent in union graded districts, and 21 per cent in rural districts. The percentage of teachers holding first-grade certificates must be increased 34 per cent in village districts, 42.9 per cent in consolidated districts, 52.5 per cent in union graded districts, and 74.4 per cent in ungraded rural districts. Salaries of teachers in village districts must be increased by approximately 15 per cent, 30 per cent in consolidated districts, 50 per cent in union graded districts, and 64 per cent in rural districts. The school term in rural districts must be lengthened two months. Finally, such a ratio of adequately trained supervisors to teachers in rural districts must be provided that supervision is as intimate, as personal, and as regular as in independent districts.

Indiana.—"Indiana is usually regarded as among the States that possess a fairly good system of public schools. As a matter of fact, the State has in this matter a better reputation than it deserves." Such, in brief, is a finding of one of the most vigorous reports of an educational survey of a State system yet made, that of the Indiana Survey Commission, which was prepared under the direction of the commission by the General Education Board, Dr. F. P. Bachman, survey director.⁹ The authorization of the survey by the general

⁹ Public Education in Indiana. Gen. Educ. Bd., New York, 1923. 304 pp.

assembly, approved March 9, 1921, called for the report not later than April 1, 1922. Owing to the magnitude of the undertaking, a preliminary report of the progress was made on the date required, but the work of the survey was continued until its completion. The elements in the situation leading to the survey and the seven items to be investigated, as specified in the resolution, are among the most interesting forms of recent educational legislation. Among the former are "the low rating of the Indiana school system, creating much speculation as to the causes of this low rank and the needed measures for improvement," and the absence of "a thorough and scientific study, by direct and first-hand investigation, of the system of public education." The latter gave full sweep to a study of the public-school system, which included 1,917 townships, 134 towns, 98 cities, Indiana University, Purdue University, and the Indiana State Normal School. The commission gives full explanation of "why the material in this report is frankly critical and why so little space is given to noteworthy and praiseworthy features of our system."

This study shows a deviation from a common survey procedure which details the features of an educational system by launching directly into an estimation of the actual educational benefits which children are receiving. In suggesting its scheme whereby needed improvements may be effectually realized, the order is somewhat reversed. These features significantly appear in the order of topics, grouped under "present conditions" and "needed improvements":

Instruction and pupil progress in elementary schools; high-school instruction; teachers, training, licenses, and salaries; teacher-training institutions (Indiana State Normal School, Indiana University, Purdue University); buildings, grounds, and equipment; high schools; vocational education; local administration; State administration; financing the schools; better State administration; better local administration; better organization of schools; new license system and salary schedule; improved provisions for teacher training; equalization of school taxes.

In contrast with other surveys conducted by this agency the Indiana investigation is distinctive by reason of the great initial dependence placed upon the results of a testing program in pupil achievements. Standard written tests in reading, spelling, arithmetic, and history were given to 15,691 elementary pupils of the fifth, seventh, and eighth grades in January, and to 9,185 high-school pupils in English reading, and to 3,884 pupils in algebra. The results of measurement were taken as corroborating the quality of instruction as judged by observation, and led to the conclusion "that the primary educational problem of Indiana is the improvement of instruction in its elementary schools and in its small high schools." A valuable innovation in tabulating test scores which facilitated comparative studies of school work in rural, town, and city situations, as well as with other States, is to be found in their transcription into "terms of the grade of work they represent." This innovation

extends so far as to consolidate the average achievements of pupils in three subjects (Table 5) into single grade positions. Chapters I and II should come to occupy a high place in survey literature.

The constructive program suggested calls for greater centralization in a State board of education, the adoption of the county unit system, the extension of consolidated and junior high schools, improved provisions for teacher training, a new system of licensing teachers based upon a progressive salary schedule, and the equalization of school taxes. The suggested scheme for the apportionment of State school funds in order to do away with inequalities discovered in the State system is based upon five items: One half of State support to be distributed on the basis of the wealth back of each child to be educated, the other half to be distributed equally on the basis of a school census; the total enrollment; the aggregate days of attendance; and the number of full-time teachers.

Hawaii.—On July 15, 1920, the United States Commissioner of Education submitted the report of A Survey of Education in Hawaii, made under his direction (Bull., 1920, No. 16, 403 pp.). The survey was made at the request of the Governor of the Territory of Hawaii, the legislature, the school commissioners, and the superintendent of public instruction, the private schools being included at the request of representatives of these schools. The field work was done by Dr. F. F. Bunker, of the Bureau of Education, with whom were associated W. W. Kemp, P. R. Kolbe, and G. R. Twiss.

The report of this survey takes on a very special interest because of the geographical isolation of the Territory, its mixture of international elements, the larger proportions of which are oriental, and its economic relationships. The report is likewise interesting because of the definite objectives for a school system which are everywhere apparent in their work.

The Nation, through preparing, along with other agencies, dependable, patriotic, and worthy citizens; the community, through shaping the training it gives, so that the community will have competent leaders and efficient workers in all its occupations; the individual himself, through helping him to find his aptitudes and abilities and through providing him with the means for so developing these that thereby he is enabled to render a service alike satisfying to himself and to society.

One of the outstanding puzzles in the earlier stages of educational survey movement was concerned with the question as to how it would be possible to eliminate unfavorable local reaction to what was mistaken for critical observation, and, therefore, offensive reflections, upon a given school situation. An important change in attitude toward survey reports is indicated by this vital point made in this study:

A survey report may appear to be unduly critical when in reality it is only calling the attention of interested authorities, in an earnest way, to opportunities for improvement in a system genuinely sound in its structure and work.

The recommendations that emerge from the study appear concurrently with the analyses of educational conditions and resources so as to suggest the direction in which school practices may be so changed as to secure desirable results in meeting the citizenship needs of the Nation, the occupational needs of the community, and the fuller offering of opportunities for the development of the needs of the individual. The scope of the study includes:

An analysis of the educational problem of Hawaii; the organization, administration, supervision, and financing of the department of public instruction; the foreign-language schools; the teaching staff of the public elementary schools; classroom procedure, and the course of study of the elementary schools; the public high schools; the University of Hawaii; the private schools.

Educational Progress in Wisconsin, prepared under the editorial direction of Cecile W. Flemming, and issued by State Supt. C. P. Cary, in 1921, as his biennial report for 1918-1920, is strikingly illustrative of the wider adoption of certain surveying methods in the preparation of permanent official records. In addition to summarizing the departmental activities, carried forward during the biennium, and the progress made by the several types of schools in the State, the 23 chapters undertake—

to make some constructive suggestions for "next steps" which should be taken to assure the continued progress in education in Wisconsin legitimately to be expected on the basis of her previous achievements.

This study likewise shows the stirring influence of the Ayres index number for State school systems, the initial announcement being couched in these warning terms:

If the legislature wishes to have Wisconsin rate higher in the next report of this kind, it can accomplish that result only by passing laws that * * * assure better attendance and a larger expenditure of money.

COUNTY AND RURAL SURVEYS.

Pennsylvania.—A plan for centralizing seven small schools, with a total enrollment of 246 pupils, is set forth in *The Feasibility of Consolidating the Schools of Mount Joy Township, Adams County, Pa.*, by Katherine M. Cook and W. S. Deffenbaugh, of the Bureau of Education (Bull., 1920, No. 9, pp. 28). For the deficiencies observed in the ineffective organization and meager attainments of the separate small schools, consolidation is specified as "the obvious remedy." In light of the desirable educational changes brought about by consolidation of schools in other States, the study details some results which may be expected from applying the remedy.

Georgia.—With an increasing theoretical emphasis being placed upon the county plan as a more effective means in State and rural administration, each detailed study of the school system of such a unit offers a distinct contribution of data valuable in an impartial

study of the comparative values of this form of organization. To this end new material is made available in the report of the Survey of the Schools of Brunswick and of Glynn County, Ga. (Bull., 1920, No. 27, pp. 82), requested of the Commissioner of Education by the county board of education, and conducted by a committee of the Bureau of Education under the direction of Dr. F. F. Bunker. The report of the study was fashioned in a manner that could not have failed to impress those to whom it was addressed. The headings of the contents set forth at a glance the state of affairs and the recommendations:

Adopt a simple cost-accounting system of records; the superintendent should keep in orderly and systematic manner statistical information concerning significant matters relating to the schools; appoint an attendance officer on full time and require him to keep a cumulative school census; the holding power of the schools is low and should be increased; amend the special act under which the schools are controlled to provide for an elective board and to make the county a single taxation unit for school purposes; the system needs a stronger teaching staff and more effective classroom work; a new course of study should be prepared for the schools; the schools suffer because of inadequate financial support; the ability of the county to provide a larger maintenance income for its schools; to relieve the crowded buildings in Brunswick and yet keep within the limits of the bond issue the schools should be organized in accordance with the work-study-play plan; the board should adopt a comprehensive building plan; the showing made by the pupils of Brunswick and Glynn County in the standard educational measurement tests given.

The Georgia State program of studying conditions in given counties as units, as noted in former reports, has been consistently carried forward during the period under review, the list including the following counties:

No. 27. Warren, 1919. No. 28. Lee, 1920. No. 29. Miller, 1920. No. 30. Laurens, 1921. No. 31. Thomas, 1921. No. 32. Johnson, 1921. [No. 33.] Dublin School system (City), 1920-21. No. 34. Burke, 1921. No. 35. Walker, 1921. No. 36. Stephens, 1922. No. 37. Dooley, 1922. No. 38. Bacon, 1922. No. 39. Grady, 1922. No. 40. Wilkes, 1922.

The series continues throughout to rely upon the former procedure of giving a page to a school, with photograph, teacher, location, grounds, building, equipment, organization, maintenance, and occasionally, other items, with statement of data. Beginning with no. 28, M. L. Duggan, rural school agent, who has been responsible for these county surveys, has had the assistance of Miss E. B. Bolton. The general emphasis has been placed upon better financial support, consolidation, and more effective administration and supervision. Beginning with no. 29, Miller County, the series introduced the plan of giving tests in achievements in order to ascertain the quality of the work being done in the schools, the subjects tested being reading, spelling, arithmetic, language, and writing (with the exception of [no. 33] which is devoted entirely to the comparative results of tests

used in the city school system in Dublin, given in December and again in May). With no. 30, Laurens County, the survey program is notably extended by the addition of two rubrics, training and qualifications of teachers, and retardation and elimination, as shown by the age-grade distribution of pupils. These three modes of procedure, teacher qualifications, pupil progress, and tests, placed these surveys upon a definitely comparable and objective basis by means of which future progress will be hereafter more accurately known. The survey of no. 37, Dooley County, is especially characterized by the inclusion of the physical examination of its school children.

Colorado.—The Public Schools of Rifle, Colo.: A Survey, by O. B. Staples (February, 1920, 92 pp.), is another illustration of a local and cooperative survey growing out of the feelings of citizens and school officials as to the limitations and needs of their schools. The study was conducted between September 29, 1919, and February 1, 1920.

Its only purpose is so to acquaint the citizens of Rifle and vicinity with the outstanding facts which concern their schools as to enable them to act more intelligently and purposefully in adopting and pursuing a program of educational reconstruction.

In the following school year a similar effort toward progress, through cooperative school enterprise, was made in the educational survey of the Fruita union high-school district.¹⁰ The seven district school boards which cooperated in this undertaking united in saying:

Our only purpose in authorizing this work is the hope that the studies made and the recommendations proposed will result in building for this territory a school system adequate for our future needs and commensurate with our opportunities.

Ohio.—The Survey of Educational Conditions in Fairfield County, Ohio (1921, 53 pp.), by F. C. Landsittel, "was undertaken at the request of the State superintendent of public instruction [V. M. Riegel] largely for his information, but primarily for the benefit of the county surveyed." Twenty-three days were given to the field work in the autumn of 1920, much of the data being secured from reports furnished by superintendents in the county. The foreword suggests

that this bulletin may be used as a guide for county superintendents in the study and survey of school conditions in their respective counties. Knowledge of things as they are is a necessary condition precedent to the realization of ideals.

The topics treated are: Background; school population and attendance; curriculum; building and grounds; the teacher and his work; supervision; financial support; reorganization.

Minnesota.—The school survey of Arlington, made under the direction of Dr. J. B. Sears, which also includes a study of districts 14,

¹⁰The Fruita Survey: An Educational Survey of the Fruita, Colo., Union High-School District, Including School Districts nos. 2, 7, 23, 25, 27, and 37, by S. Quigley, M. F. Beeson, H. T. Manuel, and R. E. Tope. 1921. 106 pp.

16, and 30 of Sibley County, is an illustration of how the conduct of a school survey may be made the laboratory exercise of a university course of instruction.¹¹ The first half of the course in school surveys, given at the University of Minnesota, in 1920, gave attention to the principles and methods of such investigations. This survey was carried out in the second half year to provide actual field experience to the seven students in the course. The style of the report is noteworthy in that it is—

addressed particularly to the parents of the children in whose interest the study has been made * * *. These words are written to the fathers and mothers of the children, and each parent should understand that "this means me."

It explains, first, the educational needs of the community; next, the kind of school it now has; and, finally, a proposed plan of reorganization to provide fitting educational opportunities for the children.

Iowa.—A report which records the uses of measurements both in school subjects and pupil intelligence is to be found in *Surveying Rural Schools: Organization, Methods, Results, and Comparisons*, by Prof. F. D. Cram.¹² The purposes of the studies here reported were to secure answers to the following questions:

1. Are standard tests usable in rural schools, and if so, by whom?
2. What are the results of our campaign, as shown by the data secured?
3. What remedial steps can be taken, if any, to improve the unearthened conditions?

The material incorporated in the report was selected from tests made in Bath Township, Cerro Gordo County; Aurelia, Cherokee County; and principally in Black Hawk County, Iowa, and extended in time over 1919-1922. Tests were applied in reading, spelling, arithmetic, the National and the Otis intelligence tests, and the special series in the last county of nine tests: National intelligence tests; Monroe's silent reading; Form 1, spelling (Virginia Word List); handwriting (Ayres' Gettysburg scale); Cleveland survey arithmetic; Barnes-Courtis Locational Geography of the United States; History; Iowa geography test; and Charter's language test. Among the general conclusions, it was found that testing is possible in one-teacher schools, especially grades three to eight, inclusive, and should be carried forward only by such county superintendents as can secure sustained responses from their teachers.

New York.—How a sense of the need of acceptable information concerning various problems relating to school conditions over a wide area can quicken a number of agencies into effective cooperative activity is well illustrated in the adoption of a resolution by the Rural Education Conference of the 1920 Farmers' Week at the New York State College of Agriculture, following its discussion of the

¹¹The Arlington School Survey: Covering a Study of the Schools of Arlington and Districts 14, 16, and 30, of Sibley County, Minn. Bull. of Univ. of Minn., Vol. XXIV, No. 28, Aug. 10, 1921. 58 pp.

¹²Bull. of Iowa State Teachers' College, Vol. XXIII, No. 3, Part 1, July, 1922. 75 pp.

question, "What can be done for the improvement of rural schools in New York State?" and its subsequent history. In consequence thereof, the century-old scheme of rural education in this State was subjected to one of the most extensively organized surveys yet undertaken. The Joint Committee on Rural Schools included representatives of seven cooperative organizations: State grange, State department of education, dairymen's league, State farm bureau federation, department of rural education of the New York State College of Agriculture, State home bureau federation, and the State teachers' association. The organization of the survey, under the direction of Prof. G. A. Works, and with the financial support of the Commonwealth Fund of New York City, comprised seven sections with a director in charge of each: Administration and supervision, C. H. Judd; teacher preparation and curricula, W. C. Bagley; rural school buildings, J. E. Butterworth; the educational product, M. E. Haggerty; support of the schools, H. Updegraff; community relations of the schools, M. Carney; and reactions of rural school patrons, E. R. Eastman. The study of special topics was assigned to one or another of these sections. Because of their close relationships, the study included the State schools of agriculture, the junior extension work, and the State department of education in its relation to the rural schools. Assistance and cooperation, both lay and professional, official and personal, marked the progress of the work which included the elementary schools in the open country and of elementary and secondary schools in places under 4,500 population. The State was divided into seven areas, and data were secured by each section of the survey from each of these regions, under the principle of "random sampling."

This extensive study is characterized by the special attention given to the "reactions of rural school patrons," by the State-wide plans of publicity through "hearings" and discussions, which changed in character with the progress of the investigation and the emergence of its findings, and the consistent unity in the proposed scheme of rural education pictured in the wide-reaching recommendations. Continuing publicity in the form "of discussion in hundreds of meetings throughout the State" is an avowed aim in the preparation of the preliminary report.¹³

This general statement, possessing literary merit not common in survey reports, abounds in single and composite pictures of rural school conditions, which show clearly the great disparity between the opportunities of the country and of the city. New emphasis is

¹³Rural School Survey of New York State: A Report to the Rural School Patrons, by the Joint Committee on Rural Schools, G. A. Works, chairman. Ithaca, N. Y., 1922. 272. pp.

It is designed that the full series of reports shall include eight volumes: II. Administration and Supervision; III. School Support; IV. Teachers and Teacher Preparation; V. School Buildings; VI. The Educational Product; VII. The Rural High School; VIII. Vocational Education.

placed upon the community as responsible for given situations by couching recommendations in such terms as that "better provision may be made *because the community believes improvement necessary.*" Expression is given to values and benefits arising from survey participation by recording the professional stimulus sensed by many of the nearly 200 school people who contributed to the field work:

Enough evidence of this character has been submitted so that the committee is convinced that, regardless of legislation such as it hopes eventually to see enacted, the reawakening that has come among rural school patrons and the stimulation of interest and broadening of vision on the part of those engaged in the teaching profession have been worth much more to the State than all time and money expended.

The committee finds the chief outcome of the investigations and the objective to be realized in its proposals presentable in this single conception:

The largest single educational problem in the State is that of equalization of educational opportunity for the country child as contrasted with the child who lives in a city or village of the State. This equalization should come not by lowering the standards in urban centers, but by the gradual development of more adequate schools for the open country.

The radical difference between the "is" characteristic of the survey, in describing conditions as found, and the "should" of a constructive study in rural education is brought to mind in a pioneer study by W. S. Deffenbaugh and J. C. Muerman, of the United States Bureau of Education, presented in their Administration and Supervision of Village Schools.¹⁴ In this study of school conditions in villages and towns in the United States having a population of less than 2,500 the authors call attention to a seriously neglected part of our national scheme of education. Their conclusions may be regarded almost as a formula, the application of which to given villages may be expected to bring about much improved school conditions:

The village school should be the community school, serving the farm child as well as the village child. The village school should not be independent of the township or county school system. The village school course of study should be based upon the life of the community. In the smaller villages only elementary and junior high-school work should be attempted. There should be a kindergarten in every village. The school grounds could well be 10 acres and serve as the village park. Every village school should contain a library, and its buildings should include, besides regular classrooms, auditorium, libraries, kitchen, and shops.

CITY SURVEYS.

Winchester, Va.—One of the most interesting of educational studies made since the surveying method defined itself is contained in Private Endowment and Public Education: the Report of the Use of the Handley Fund.¹⁵ The fulfillment of the time for accumulation of the fund bequeathed by John Handley to the city of Winchester

¹⁴ U. S. Bu. of Educ. Bul., 1919, No. 86. 63 pp.

¹⁵ Gen. Educ. Bd., New York, 1918. 77 pp.

brought forward the question as to the proper use of "the income arising from said residue estate to be expended and laid out in said city by the erection of schoolhouses for the education of the poor." This led the board of trustees of this fund to seek the aid of the General Education Board in answering the question. The assistance was rendered on the basis of a study which included the people and industries of Winchester, the schools, and their needs. It is interesting to note that the last six words of the bequest, "for the education of the poor," is thus rendered by the survey: "This phrase, when interpreted in present-day terms, must mean public education." In calling attention to the need of a complete reconstruction of the public schools of Winchester, the survey offers its argument in terms of a kind of "educational organization and opportunity approved by the most competent contemporary thought." In the further development of its suggestions for the use of the Handley Fund, a new interpretative principle is offered:

Private benefactions are best employed when they stimulate public interest and public participation in social enterprises that the public can not otherwise for the time being undertake. Such use fosters the development of sound public opinion, enlarges the field of public activity, and deepens the sense of public responsibility.

Binghamton, N. Y.—The report of the Binghamton school survey, by the State department of education, is particularly interesting in view of the fact that it treats of what is essentially an American city, the percentage of native white parentage being 62.9 per cent.¹⁶ The appearance of such a community is very unusual in the survey literature. The survey was requested by the board of education, and carried on during the school year 1917-18, under the direction of George M. Wiley and a staff of specialists of the State department of education. In expressing the hope that the study would assist "the citizens of the community in meeting the school problems of the next decade," the commissioner of education, Dr. John H. Finley, adds:

It is the type of constructive surveys which I hope the department will be increasingly able to give to the communities of this State. Indeed, I know of no higher service that the State can give through its educational department than to help each community to develop its school system in the best way possible, and to enable local initiative to take advantage of general experience.

The nine items receiving attention are: The city of Binghamton; organization and administration; the school plant; supervision; the teaching staff; course of study and instruction in the elementary schools; course of study and instruction in the high school; achievement in fundamental subjects as measured by standard tests; and finances. The high-school analysis was a feature of this survey, receiving as it did the largest amount of attention given to any

¹⁶ Report of the Survey of the Binghamton School System. University of the State of New York. Albany, 1919. 209 pp.

school topic, the measurement of achievements in fundamental subjects coming a close second. The subjects tested included the fundamental operations of arithmetic, composition, silent reading, spelling, and writing from grades four to eight, and, in a few instances, the third grade. The results of the testing showed that, although Binghamton is characteristically instructing American children, "the work is stronger in those subjects that are under the direction of special supervisors."

Utica, N. Y.—The third city school system surveyed by the State department of education of New York presented their conditions in a community which is quite the opposite from that of the preceding survey. The survey of the Utica school system follows the same plan as the preceding report, with the addition of health education.¹⁷ The survey was undertaken at the request of the chamber of commerce, the board of education concurring, the inquiry having been completed during the school year of 1917-18, under the direction of George M. Wiley and a staff of specialists of the State department of education. The study revealed that Utica, with two-thirds of its population foreign-born or of foreign-born parentage, was facing a distinctive school problem, and one which should have been of unusual interest to the educational authorities of the city. The report recommends considerable reorganization in administrative management, a more effective solution of the problems of the school plant, revision and extension of the courses of study, giving more attention to the manual arts, industrial arts, and to home science, to the end that the school program and activities shall reflect more vigorously the significant part which the industries fill in the daily life of the city.

Paducah, Ky.—The Survey of the Public-School System, Paducah, Ky., (August, 1919, pp. 164) is the work of a welcome new agency which has entered the active field of surveying. With a single exception, the 15 members of the staff were members of the George Peabody College for Teachers, whose labors were directed by Dr. T. Alexander. The scope of the study included administration and supervision, buildings and grounds, elementary schools, the high schools, physical education, music, home economics, and industrial arts. The results were embodied in 115 proposals designed to aid the board of education to carry out "its plan of making radical changes and improvements." Serviceable data are recorded of the results of tests given to white and to colored pupils in elementary schools in arithmetic, reading, writing, language, and spelling.

The survey was undertaken with the understanding that the recommendations of the survey staff would be followed out as far as practicable and that individual

¹⁷ Report of the Survey of the Utica School System. University of the State of New York. Albany [no date]. 230 pp.

members of the survey staff would be permitted to render assistance in the execution of its recommendations. (These) are intended for Paducah only and for this reason members of the staff were instructed to confine themselves entirely to a statement of the conditions as found and very explicit and direct recommendations for the improvement of such conditions. Accordingly a great many of the statistical studies and much of the philosophy of education, which have been included in many surveys, have been purposely omitted. * * * The survey staff stand ready to give teachers individual and collective assistance if requested to do so by the board of education.

Memphis, Tenn.—Because of the failure of a striking instance of civic enterprise and development to recognize the importance of the educational resources in a modern American city, the study of the school situation in Memphis acquires special interest. At the request of the city board of education, in April, 1919, the United States Commissioner of Education undertook the task of making a survey of the public-school system of that city under very specific conditions. The field work was accomplished between May 12 and June 7; and the publication, authorized on September 25, 1919, included the report of the survey staff, Dr. F. F. Bunker, director, with whom were associated 10 specialists in governmental bureaus and five specialists from other institutions.¹⁸ The form of this report is a notable instance of the effort of a survey to realize its full purposes, namely, of presenting technical details for the benefit of administrative and teaching forces, but also the needs of the citizen in appreciating and supporting the policy of educational reconstruction.

It is obviously necessary that the average citizen have an intelligent understanding of school conditions and school problems, since no public-school system can function successfully except as it is founded upon the educated public opinion of the masses of the people. For these reasons the Bureau of Education is publishing not only a detailed, more or less technical, report of the Memphis school survey, but also the present brief abstract of the report for the use of the average citizen who is interested in gaining a general knowledge of the findings of the survey, and whose intelligent interest is such an important factor in the work of the teaching force of the city, the school officers, and the board of education.

The survey of the city clearly indicates that, if the city is to grow and prosper socially and commercially, as much foresight and scientific planning must be spent upon the education of the children as has been expended upon the material development of the city. Conditions have changed, and education must be changed to meet these conditions. Are the schools of Memphis recognizing this fact?

The pointedness of the survey, which includes analytic and constructive study of the main features of organized school activities and discovers, as indicated by the great number of specific recommendations, that great changes are needed at every point, appears conspicuously in the "questions which the people of Memphis are

¹⁸The Public School System of Memphis, Tenn.; Report of the Survey Made Under the Direction of the Commissioner of Education. Bull., 1919, No. 50. In 7 parts. Also An Abstract of the Report on the Public-School System of Memphis, Tenn. Bull., 1919, No. 72.

raising in regard to their schools" as detailed in the more popular abstract:

(1) Are the schools educating the children so that they can meet life as it is to-day, with intelligence, self-reliance, courage, and resourcefulness? Are the schools organized in the light of changed social and industrial conditions, or are they still conducted as though such changes had not taken place?

(2) Are the schools of Memphis developing in the children the spirit of initiative and the ability to think for themselves? Does the teaching stimulate thinking, or does it train merely in the capacity to give rote answers to questions?

(3) Are the schools developing the scientific spirit and the practical scientific knowledge so important in meeting the conditions of modern social and industrial life?

(4) Are the schools developing in the children general mechanical ability and adaptability?

(5) What are the schools of Memphis doing to preserve the best traditions of the South in the art of living and the love of beauty?

(6) Are the schools contributing to the development of the children's health through the opportunity for wholesome play every day, or are the children left to the mercy of the city street, with its physical and moral dangers?

Among the features of the survey may be noted the attention given the measurement tests in silent reading, spelling, and arithmetic to children of the two races; the suggested reorganization of both elementary and high school instruction; the special treatment of the newer subjects of civics, science, music, industrial arts, home economics, gardening, and health work; and specifically the greater economy and educational effectiveness of a building program based on the work-study-play plan of educational reorganization.

Boise, Idaho.—The report of the preceding survey strikingly emphasizes the extraordinary progress made in recent years in American city-school systems. The Boise survey, by Dr. J. B. Sears, assisted by W. M. Proctor and J. H. Williams,¹⁹ authorized April 17, 1919, and the field work accomplished in two weeks, is equally striking in noting specific points wherein the changing conditions in American city public education requires exceeding alertness on the part of the authorities and the school officials to keep the activities of the teaching staff and the children in the forward line of progress. This survey projects this conception of the more modern school:

that the school is not to be isolated from other social interests; that the teaching of reading, writing, and arithmetic are not its sole functions; that education has as much to do with real occupations, real civic and social duties and obligations, real people, real things, and real conduct of men; and, finally, that educational opportunities should be available for old as well as young.

The educational problem before this community is thus framed:

The city is able to have the best, and is morally responsible to a wide territory to furnish a demonstration of the best that can be worked out in educational practices in that part of the United States.

¹⁹ The Boise Survey: A Concrete Study of the Administration of a City School System. Educational Survey Series, Vol. IX. New York, World Book Co., 1920. 286 pp.

The detailed analysis of all the elements in the school situation led to a report which

calls for a larger teaching force; for more thorough supervision; for additions to curriculum; for added library and equipment; for better buildings; for greater attention to matters of health and physical development; for certain lines of reorganization; for the organization of special classes; for vocational and educational guidance; for night schools; and, finally, for the development of a junior college.

The educational leadership of this city, it is indicated, is possible by the readily available financial resources which will enable it "to get out of the 'average' and into the 'modern' group of city school systems."

Washington, D. C.—Data serviceable for comparative purposes in a plan for the reconstruction in a school system were rendered available in the preliminary survey of the schools of the District of Columbia, made under the direction of the United States Commissioner of Education.²⁰ The request by the board of education, in the District of Columbia, for prompt assistance is the reason for the restriction of the study wholly to questions of reorganization of the administrative and teaching forces of the schools, including the schedule of salaries, the report being made in October, 1920.

Locust Point, Baltimore.—An illustration of the application of educational survey methods in the study of a single school and the economic resources and educational needs of its very special community is found in the report by C. A. Bennett on The Francis Scott Key School, Baltimore, Md., (Bu. Educ., Bul. 1920, No. 41, 31 pp.). The school population of nearly 800 children, elementary school, kindergarten, and ungraded group, supplies the educational needs of a curiously restricted industrial and shipping peninsula which continues to be a residence section. This study was consequent upon the pathfinder survey in 1914, and, more recently, the advice of former United States Commissioner of Education Dr. P. P. Claxton, whose cooperation was sought in regard to

the reorganization of the school to meet more effectively the needs of the children and the adult population of that section, and to suggest plans for a building to be so constructed as to adapt it to the use of the school so reorganized. This study * * * is an effort to break through the wall of school tradition and get a view of community educational needs unhampered. It does not ignore school experience or discount its value in solving new problems.

A study of the conditions at Locust Point reveals that only about one-half of one per cent of these children ever go to high school, that most boys and girls leave school and go to work as soon as they reach their fourteenth birthday, that most of the work-certificate children have little chance to learn a trade, and that there is a great lack of facilities for industrial training.

²⁰ U. S. Bu. of Educ. Bul., 1920, No. 36. 15 pp.

The proposed changes include provision for what "might be called an intermediate school" for all children 13 years of age or older, and all others who have reached the sixth grade, to be organized on a departmental plan in which industrial training, physical training, and recreation are to rank equal with other subjects; and the organization of cooperative part-time classes and the addition of a one-year trade or vocational course to follow the eighth grade. Further changes are suggested in the addition of more industrial work for slow and subnormal pupils and the organization of evening trade or vocational classes for those who are working in the industries. Detailed schedules for the departmental organization in the school, including programs of teachers, classes of boys, classes of girls, and building needs, led to the determination of the size and equipment necessary for the proposed new building.

Winchester, Mass.—The expression of public opinion regarding alleged defects in the work of the public schools in the town of Winchester, Mass., reached such a point that at a town meeting on March 3, 1919, a committee of 15 was authorized

to consider the advisability of having an educational survey of the public-school system of the town with a view to improving the same, or of taking any other action with respect to the public schools.

The report of the committee of fifteen on public schools, of the town of Winchester, Mass. (1919, 37 pp.), made to the board of selectmen, shows how a detailed questionnaire analysis of an indefinite public dissatisfaction of schools can lead to a survey. Just one year later, a school committee was authorized to make arrangements with the United States Commissioner of Education for a survey to be made under his direction. The report of the survey presents the findings and recommendations of the special committee of nine members under the direction of Dr. F. F. Bunker, including with other members of the bureau, Dr. T. W. Balliet and E. A. Lincoln.²¹ The report is interesting because of the opportunity which it incidently affords in showing the characteristic progress which public education in the United States has made during 30 years, and is also well saturated with clear expositions of the basic theories and of schoolroom practice of present-day education from the kindergarten up. It is also interesting to note that the rather restless state of public opinion regarding school results was not wholly justifiable.

The report is organized about the following topics: The organization, administration, and financing of the public schools; a school building program; work in the kindergarten and the primary grades; the courses of study (both elementary and high school); the high schools; results of the standard educational measurement tests. The

²¹ Survey of the Schools of Winchester, Mass. U. S. Bu. of Educ., Bul., 1920, no. 43. 190 pp.

tests in the elementary school included arithmetic, spelling, silent reading, and reasoning in arithmetic; in the high school, algebra, Latin, French, Spanish, United States history, physics, English composition, and typewriting. "The principle of multiple use of facilities" is well urged in the presentation of the three alternate plans proposed for the building situation in this city. It is also interesting to note the general reliance in the expository sections on the report of the Memphis survey which suggests that future reports of survey investigations may well cease to be strictly local and individualistic.

Lawrence, Kans.—An interesting illustration of a patient observance of survey technique is found in the report of a survey of certain features of the school system of Lawrence, Kans., conducted under the direction of the bureau of school service (F. P. O'Brien, director), school of education, University of Kansas.²² On October 11, 1920, the board of education sought advice as to "what sort of a new high school must be constructed to serve the needs of the city of Lawrence," and on January 3, 1921, the answer, through the survey report, was given. The publication was interestingly delayed so as to record the outcome of the follow-up publicity campaign from January to April, the successful bond election authorizing an issue of \$495,000, and the final actual construction of the building. The procedure of the study followed these three definite steps:

To determine the kind of high-school curriculum or curriculums that are needed in order to provide adequately for secondary education in a social community such as Lawrence, recognizing that the specifically educational factors must receive first consideration. To determine what kind of a school-building program such a curriculum or curriculums will demand. To determine what is the ability of Lawrence to pay for such a school-building program and the most approved method of doing it.

The topics of the report progressed as follows:

The city of Lawrence and its high school; the present high school and its lack of adequate provisions; some facts of social significance relative to the high-school population; school provisions to fit the pupils' needs; courses of study for junior and senior high school; the factors that must be considered; what should be the size of the ultimate elementary-school plant 20 years hence; the ultimate junior and senior high-school plant; school finances; the size of the education problem financially in Lawrence; financing the proposed program.

Wheeling, W. Va.—The strictly professional character of present-day public education is notably attested once more by the recounting of the uneven attainments and difficulties encountered by uninstructed laymen whose zeal and devotion can in no wise compensate for the inevitable errors of judgment, in the educational survey of Wheeling, W. Va., made under the direction of the United States Commissioner of Education.²³ A survey was authorized December 30, 1920, and

²² Bul. of Univ. of Kansas, vol. 23, no. 1, Jan. 1, 1922. 100 pp.

²³ U. S. Bu. of Educ., Bul., 1921, no. 28. 33 pp.

the field work was conducted between January 17 and March 10, 1921, by Dr. W. T. Bawden, director of the survey, with whom were associated five specialists from the Bureau of Education and six from outside. The published report, which contains a brief digest or summary of the principal conclusions and recommendations, shows the very wide spread of the detailed features of a well-organized system of city schools. The scope of the recommendations, which involve an almost complete reorganization of the system, can well be understood in view of the fact that the Wheeling school organization, originally created in 1849, had been allowed to continue to function under the spirit of its original local independence. The initial steps were promptly taken to adapt the survey recommendations relative to the reorganization of the board by reducing the board of education from 25 to 5 by making the superintendent its real executive officer, and by raising the qualifications of teachers.

Niagara Falls, N. Y.—This survey report is interesting because it early instances the pressing problem of providing adequate housing facilities for school children in the postwar period. A study of this problem by the building and grounds committee of the board of education of Niagara Falls in April, 1919, led the board to request the State department of education not only to assist in this particular difficulty but to study the school system as a whole. The major portion of the work covered by the survey was done during the school year of 1919–1920, the measurement of instruction by the giving of standard tests being completed in the autumn of 1920.²⁴ The Niagara Falls survey was conducted under the direction of G. M. Wiley. The usual form of procedure was carried out in the study of the school activities and problems in this city. The program was varied by the addition of a section on industrial education. It is to be noted that the school-building program became guaranteed by a total bond issue of \$3,500,000.

Wilmington, Del.—The school survey of this city is traceable to a special arousalment of public interest in school problems stimulated by, and related to, the legislation following the Delaware State survey in 1919 (see above). The popular interest in the situation leading to the undertaking is no less indicated by the action of the board of education in March, 1920, which authorized a survey to be made by a committee of 30 citizens, 10 being appointed by the board, 10 by the city council, and 10 by the mayor of the city. The survey was made by the United States Commissioner of Education, with Dr. F. F. Bunker in charge, with whom were associated 8 other members of the staff of the Bureau of Education and 7 others from outside the

²⁴The Niagara Falls School System: Report of a Survey by the State Department of Education. (University of the State of New York. Albany, 1921. 220 pp.)

bureau. The field work was effected in October-November, and the report completed in the following month.²⁵ The form of the report is of interest, the separation being based on those "matters having to do with legislation," including the educational background, school organization, supervision and finance, and a school-building program, which were thus made available in Part I for the convening of the general assembly at its session early in January. "The more strictly educational aspects" of the city's school problem, including the treatment of the elementary school courses, secondary education, and special departments and subjects, comprise Part II.

It was recommended that the city bring itself into coordinated relation with the State system, still in process of reorganization; that the building program be modified to introduce educational enrichments; and that, on the basis of the observation and analysis of school practices and records, the educational achievements be brought forward to a level comparable with the more progressive city systems. In the course of the preliminary considerations the Commissioner of Education thus outlined the scope of a city school survey as covering eight groups of items:

A study of the schoolhouse situation, with recommendations for repairing the old buildings and making them more useful and more sanitary, replacing those out of use, and outlining a building program for the next 8 or 10 years.

A study of the organization of the board of education and its methods of work, with special relation to the business activities and to the schools through the superintendent and other officers.

A study of the organization of the schools and their administration under the direction of the superintendent, with recommendations for improvements.

The financing of the schools, the salaries of teachers and other school officers.

A study of the education, professional preparation, and experience of teachers, and the spirit of the teaching body.

A study of the courses of study and their adaptation to the needs of the city, with recommendations for their modification and improvement, and a statement of reasons for the same.

A study of methods of instruction, the results and standards, with recommendations.

As a background for all recommendations for improvements and readjustments it will be necessary to make a comprehensive study of the city as a community, its industries, the occupations of its people, and its life and ideals.

Baltimore, Md.—This city is outstanding by reason of the fact that it has experienced at least four different survey undertakings. Because of the interest of the educational committee, Mrs. Daniel Miller, chairman, of the Arundel Good Government Club, in 1897 and in 1898, a special report of the sanitary condition of the primary schools of Baltimore was made by Prof. S. H. Woodbridge, of the Institute of Technology of Boston, submitted May 9, 1898. The 14 items listed on the

²⁵ Survey of the Schools of Wilmington, Del. U. S. Bu. Educ., 1921, No. 2, Part I, 132 pp.; Part II, 191 pp.

question blank used for this inquiry bear interesting historical relationship to such a modern instrument as the Strayer-Engelhardt score card for city school buildings. The following year, the second report of the committee on these same schools endeavored to show the progress made in repairing the schools and improving their sanitary condition.

Baltimore was the first large city school system to receive the attention of a definitely organized survey group. It was under the chairmanship of Dr. E. E. Brown, then United States Commissioner of Education.²⁶

The failure of these two studies to arouse an interest in the problem of improving the the public school plant is evident from the appearance, on February 28, 1920, of the report of the physical conditions of the elementary public schools of Baltimore City.²⁷ This undertaking on the part of the teachers enjoyed the cooperation of the board of school commissioners and of the school superintendent and representatives of 22 civic and commercial agencies. The data were collected by means of the Strayer-Engelhardt score card, and are believed to present a fair picture of conditions as they existed in June, 1919. The prophetic character of this report may be seen in the dissociated event of a later undertaking:

The purpose of the report is not to attack any board or individual. The teachers' council is attempting merely to present to the people of Baltimore a fair picture of physical conditions as they exist in the public schools, and their purpose in this presentation is to create in the people of Baltimore a willingness to spend upon the school buildings the money that may be necessary for their rehabilitation.

The Baltimore school survey, 1920-21, is the fourth, the largest, and the most effective enterprise of this type undertaken in this community. It is also one of the two or three most distinctive contributions to the survey movement during the period under review. The inauguration of this survey is a tribute to the reconstructive values of the survey movement, and, at the same time, was incidental to the reorganization of the board of school commissioners following changes in the political complexion of the city government in 1919. In accepting the completed manuscript of the report of May 31, 1921, Dr. Henry S. West makes record of the assurance that the school board, in inviting him to the superintendency the preceding year,

would take steps to have a school survey inaugurated at the very beginning of the new school year, so as to get the completed survey report as early as possible in 1921. My attitude was to welcome heartily a thorough survey of the Baltimore school system as a first and a most important move on the part of the reorganized board of school commissioners. My own experience with previous school surveys had taught me that a school survey properly conducted by a competent and impartial director,

²⁶ See Report of the Commission Appointed to Study the System of Education in the Public Schools of Baltimore, U. S. Bu. of Educ., Bul., 1911, No. 4.

²⁷ Council of the Allied Association of Public School Teachers of Baltimore. Bulletin No. 7. Issued under the editorial direction of Dr. W. H. Maltbie. 278 pp.

not connected with the school system being surveyed, could bring to that system a clearness of vision as to the existing situation, and a soundness of judgment as to recommendations for the future, that would be of tremendous and lasting value to the city under survey.

The survey was under the direction of Dr. G. D. Strayer, who utilized the large staff of 110 outside persons. The work began October 1, 1920, and was completed with full reports May 31, 1921. The report includes three volumes devoted respectively to the school plant and the school building program, the administration of public schools and other studies, and the school curriculum. The program of publicity first centered about a series of six luncheons held between December 10 and May 13, which offered an opportunity to present, from time to time, various aspects of the investigation and to enlist the enlightened spirit of citizens in carrying forward the survey recommendations. The second publicity item was the condensation of the elaborate and detailed report into an abstract (54 pp.), in which was presented the facts in summary tables and statements of the findings of the survey, together with a statement of the progress in the adoption of different recommendations that had been made during the conduct of the survey and since its completion.

The distinctive features of this survey include the provision of a reviewing committee of six members, each of whom is distinguished for his knowledge of special phases of public education and the close cooperation between the board of school commissioners and the director of the survey during the progress of the investigation whereby effective adoption of a large number of recommendations was made even before the close of the work. The reviewing committee was brought to Baltimore and spent one week in their effort to evaluate the local situation and the recommendations of the survey.

Caldwell, N. J.—The administrative convenience of a survey to those in authority, even if it includes "only a limited number of fields," in a school situation is well illustrated by *A Study Made of the Caldwell, N. J., School System*, by Dr. N. L. Englehardt (June, 1921, 34 pp.). It is pointed out that the many prominent elements in this school situation can be progressively balanced by "the adoption of a definite school program indicative of progress, the acceptance of this program by the community, and the harmonious spirit of the community in its development."

Elizabeth City, N. C.—The Commissioner of Education and a committee of seven persons, under the direction of Dr. W. T. Bawden, at the request of the board of school trustees, submitted between July 30, 1920, and July 7, 1921, successive sections of their report, *Educational Survey of Elizabeth City, N. C.; Summary of Conclusions and Recommendations, upon school conditions in this city.*²⁸ Among

²⁸ U. S. Bu. of Educ. Bul., 1921, No. 26. 43 pp.

the suggestions for improvements are a showing of the greater economy of the work-study-play plan of educational activities for a building program, 17 types of data as most desirable to be found and brought up to date in a city superintendent's office, and the list of 10 characteristics to be found in a school system whose chief executive is "making a continuous survey."

Honesdale, Pa.—On July 13, 1921, Dr. D. W. La Rue submitted the report of the Educational Survey of Honesdale, Pa., (160 pp.), made during the previous school year, in the testing part of which he had been assisted by C. J. Naegle. The study was requested by the school board, the parent-teachers' association, and the chamber of commerce in order "to find whether this borough is doing all that it can and ought to do for its children." This study of a school situation is specially interesting because of the specific objective thus described and kept in mind:

Agreeably, both to the wishes of the local authorities and the desires of the surveyors, the child has been kept in the foreground * * *. Accordingly we have endeavored to follow the child from his home—from his birth, in fact, to and through school and out into society, making a survey of all that happens to him on the way.

The persistence of this objective is to be noted in the topical distribution of the report:

Honesdale, the place and the people; social and educational aims, "for the children's sake"; the preschool care of the children, transition from home to school; care of mental and bodily health; morale, character, discipline, and democracy; the program of studies and the children's future; the child's progress through his curriculum; teachers and supervisors; making lessons effective in the lives of the learners; individuation, and the placing of the school product back in society; administering the schools for the children; school and community interests.

The testing program covered grades three to eight and classes in the high school, and included intelligence tests and achievement tests in reading, arithmetic, spelling, handwriting, language, composition, history, and elementary algebra. The report includes a new scheme for rating teachers which was devised for this survey (pp. 86-89). It is arranged "as a possible aid to those who must supervise and rate teachers; but more especially that teachers may profit by applying it to themselves." The chief qualifications of the good teacher are thus grouped: Character, morale, discipline, democracy; health—mental and bodily—attitude, and energy; general intelligence, general power of adaptation and adjustment; technical achievement.

Hackensack, N. J.—Much relief is sensed in coming to the report of a survey which is of a good or progressive, and not of a bad or backward, school situation. The report of the survey of the Hackensack public school system, by Drs. G. D. Strayer and N. L. Engelhardt, aided by six assistants, describes the modern school system,

and indicates that the specific task of the surveyors was so to frame their analyses as to enable them to point out the directions in which the continuing progress in this system may be moving.²⁹ The survey, indeed, partakes more of the nature of an audit which assures the community that their school money is being spent wisely and places their school system among the foremost in the country. In addition to the approval of a school-building program looking forward 20 years, it is impressive to note the curious problem which

lies in the needs of the children who transfer from other school systems to the local school system. Children who spend their educational lives in the Hackensack schools progress more rapidly than these other children.

The outstanding features of the survey include the measurement of the classroom achievements of children (in June) in reading, handwriting, English composition, spelling, arithmetic, algebra and Latin, the outline for judging the quality of instruction (based upon the observation of two full classroom periods), and the new scale for scoring teaching methods and teaching control. This survey in effect is an experimental demonstration of means for maintaining progress. "None of the real problems in modern education have been left untouched by the present school staff."

Philadelphia, Pa.—Because this city was the last great municipality to yield to the survey procedure in educational enterprises, and also because the organization and the conduct of the investigation represent great and significant changes in the wide-sweeping reorganization of the administration of a State department of education, the report of the survey of the Philadelphia public schools, by the Pennsylvania State department of public instruction, takes on new and exceptional interest.³⁰ Community initiative, based on a belief of survey values in educational progress, expressed itself when in December, 1917, F. P. Gruenberg, director of the Bureau of Municipal Research, and B. M. Watson, director of the Public Education and Child-Labor Association, began their appeals to the members of the school board to undertake a survey. The period of nearly two and one-half years following witnessed interesting manifestations of individual and civic interests in the project. The belated discovery that "the condition of the school treasury would not permit the expense" resulted in a large number of individuals and business corporations underwriting the amount of \$32,000 to meet the expenses. The school board then arranged for a joint survey committee, including six of its own members and six citizens of the city, which began functioning April 15, 1920. Later developments led to an invitation

²⁹ Report of the Survey of the Public School System of Hackensack, N. J. The Hackensack Schools, No. 2, November, 1921. 227 pp.

³⁰ Report of the Survey of the Public Schools of Philadelphia, Pa. 4 books. Public Education and Child-Labor Association of Pennsylvania, 1922.

to Dr. T. E. Finegan to make the survey. The basis of his acceptance is an indication of the effective adoption of new administrative principles in the reorganization of the State department of public instruction in Pennsylvania, which was then under way.

The professional staff of the State department had been organized and equipped to do the identical work which was involved in the survey of the schools of Philadelphia, and the law * * * made it his duty to obtain the information that would be revealed through the survey of important or typical districts for the purpose of advising the legislature on plans for such improvements of the school system as he deems expedient.

The survey was accordingly conducted without expense to the city or to the citizens of Philadelphia.

Associated with the director of the survey were Dr. J. W. Withers, in charge of elementary education; Dr. T. H. Briggs, in charge of secondary education; and Dr. H. S. Weet, in charge of school finance, with whom were associated 36 members and 23 nonmembers of the State department staff, a total of 63 persons, no one of whom had been connected with the Philadelphia schools. The work of the investigation extended over the school year 1920-21. The first public expression of the scope and results of the undertaking was made on March 29, 1922, to a large public audience.

It is to be noted that in a study of the school plant, organization and administration, pupils, types of schools, vocational education, and instruction in its 12 chief branches the survey utilizes the historical background of the city's system as a basis for understanding the conditions that were found to exist. The Philadelphia survey also ranks with the last Baltimore survey in the timely success indicated in the adoption by the school authorities of recommendations made from time to time during the progress of the work. The readiness of the school authorities to proceed to the correction of the chief defects of the system as soon as they were revealed is expressive of the changed attitude on the part of public opinion toward the investigation as a whole. The report is characterized by specific records of the changes which were effective during the undertaking and before the publication of the document. The reorganization and extension, in the light of accepted modern standards, in almost every detailed feature of a school system, are indicative of the thoroughness of the work. The school-building program is one of the outstanding features, as is indicated by the proposed expenditure of \$84,000,000 by 1940. The spirit in which this general recommendation was accepted is marked by the official action which has provided for the expenditure of over \$39,000,000 on the school plant by 1924.

In view of the gigantic project of modernizing such a large system in the light of this study, the city is exceptionally fortunate in the legal relationships which obtain between itself and the State depart-

ment of education, whereby assistance will be readily available in the formulation and reformulation of plans and policies for a continuous readjustment of the school system.

Sparta, Wis.—Some Recommendations for the Improvement of the School System of Sparta, Wis., by W. S. Deffenbaugh, of the United States Bureau of Education (23 pp.), were made in November, 1921, on the basis of a general view of the situation, and in the effort to secure an expansion of the school system in the light of general educational theory and practice. The study did not include the methods of administration employed by the board of education for classroom instruction and the measurement of the ability and achievements of the pupils. "The report has been written for the citizens of Sparta."

New Bedford, Mass.—Principles, Policies, and Plans for the Improvement of the New Bedford Public Schools presents the results of cooperative studies carried out by the school committee, the administrative and supervisory staff, principals and teachers under the direction of F. E. Spaulding (181 pp., February, 1922). This survey proposed and executed a new plan of organization, which undertook a marked departure from the usual procedure. Under the highly detailed "agreement," which listed for study 14 aspects of the school system, the cooperative enterprise extended from September 27, 1921, to February 9, 1922, requiring 10 visits of the director, who—

as provided in the "agreement," has been strictly responsible for the plan, the methods, the reliability of the results, and the formulation of the program of practicable improvements growing out of the studies.

While these studies are referred to in the "memorandum of agreement" as a "survey," they have differed radically in conduct, consistent aim, and immediate results from the school survey that has come to be typical. These differences, deliberately planned from the beginning and kept constantly in mind throughout, * * * should be appreciated by the reader accustomed to exhaustive, conventional survey reports, if he would avoid mistakes of judging these studies, as here published, merely by comparing them with such typical survey reports.

The influences of the studies have been distinctly educational * * * concerning the effective conduct of a school system under the complex and difficult conditions that a city like New Bedford presents. Out of this education of the school forces has grown the intelligent and hearty acceptance of the program of improvements.

The principal items in the program of improvements include: New rules and regulations; changes in the membership and terms of office of the school committee; the reorganization of the administrative and supervisory control of the entire system; the reorganization and consolidation of elementary school principalships; proposed salary schedules; extension of the curriculum of the high school; introduction of the junior high-school organization; changes needed in plans and policies below the high school; and a comprehensive program for the extension and improvement of the school plant.

Shreveport and Caddo Parish, La.—One of the most illuminating surveys of the biennium is that which was made by the Commissioner of Education upon the joint invitation of the board of education of Caddo Parish and the State superintendent of public instruction of Louisiana. The staff included W. S. Deffenbaugh, with whom were associated C. A. Ives, T. Alexander, and F. B. Dresslar, who completed the field work between April 10 and 29, 1922. The report of the findings and recommendations was issued by the Louisiana State department of education.³¹ Opportunity is here given for a study of unusual developments, within the brief period of 22 years, of public education, and also of an unusual combination of the factors involved in the development of a system including city and rural situations, and of the white and the colored races. To the usual items of organization, administration, including finance and teaching staff, buildings and grounds, high schools and elementary schools, is added the measurement of achievements of the pupils. Tests were given in reading, spelling, language, and arithmetic in elementary schools; and algebra, Latin, and reading in high schools. From certain points of view, it is remarkable to find the white city schools up to or above standard, the white rural schools practically up to standard, and the colored schools characteristically below standard.

Atlanta, Ga.—The elaborate inquiry into the school situation in Atlanta, Ga., in 1921–22, is a clear indication of the excellence of the work to be expected from the new formally organized agency, the division of field studies of the Institute of Educational Research of Teachers College, under the direction of Dr. G. D. Strayer, which has entered the field of surveying. It likewise instances the practical wisdom of a community, which, having appropriated \$4,000,000 for school buildings,

felt that a thorough study should be made of the existing conditions in the school plant and that the appropriation should be expended only for buildings erected to become parts of a permanent school plant.³²

The report ranks in scope and technique with the largest undertakings in the biennium. Fifty-three field workers were engaged in the study. The suggestion for a revision of the city charter involving the school board, and the complete reorganization of a 7-4 into a K 6-3-3 system, a recommendation approved by the school board and to be made the basis of the proposed building program, are, probably, the most marked features of this investigation of a long outgrown,

³¹ Survey of the Schools of Caddo Parish, with Special Reference to the City of Shreveport, La. 156 pp.

³² Vol. I, Surveys of the Public School Buildings and the School Building Program for Atlanta, Ga., Directed by Dr. N. L. Englehardt, 260 pp.; Vol. II, The Organization and Administration of the School System, Including School Costs, the Teaching Corps, and the Educational Program of the Schools, Directed by Drs. N. L. Englehardt and E. S. Evenden. 255 pp.

urban, and biracial system of public education. The topics presented in the report are:

School buildings for white children; school-building sites; buildings and building structure; the service systems of the present school plant; classrooms; special rooms; school buildings for colored children; studies of population; the residential distribution of school children; a new educational organization and the white school population to be served; recommendations for the schools for white children; recommendations for the schools for colored children; the cost of the replacement program and the immediate building program; the organization and administration of the Atlanta public schools; school financing and school costs in Atlanta; classification and progress studies; grade progress studies for schools for colored children; the training and experience of teachers; the teaching staff of the schools for colored children; the organization of the educational program; the curriculum; and vocational education.

Cleveland Heights, Ohio.—Upon the suggestion of the educational committee of the Men's Civic Club, the board of education of Cleveland Heights ordered a survey of their schools, which was made between May 15 and 26, 1922, under the direction of Dr. J. W. Withers, with a staff of seven members. It was specified that "the survey should be thorough, covering every important matter affecting the efficiency of the school system," covering six major features, and including over 50 specific points listed for the undertaking. "The one and only purpose should be so to present and interpret the findings, and to make such recommendations for improvement based upon these findings, as will make for the improvement of the schools."

SPECIAL PHASES IN CITY SURVEYS.

The adaptability of the survey procedure to aid educational administration in dealing with problems involved in special situations was made evident in earlier years, and has shown a wider range in the present period. The one-time ambition of a "complete" or a "scientific" survey of a school situation has been wisely replaced, in part, by a disposition to seek guidance through the offerings of selected studies. The following instances are indicative of the new trend in administration to be more specific in its efforts and to project "a program."

The school building program.—That the adequate housing of the increasing public-school population had become a real problem, even in times of peace, was illustrated, e. g., by the St. Paul and the Omaha surveys before our Nation entered the World War. The interruption to the usual pace in constructing additional housing facilities following this event created a nation-wide congestion in schools. This is clearly shown by the ranking importance of the school-building program topic in the recent city surveys, and by these special studies:

Financial and Building Needs of the Schools of Lexington, Ky., made under the direction of the United States Commissioner of Education. Bulletin, 1919, No. 68. 50 pp.

A Survey of Public-School Building Requirements in Cleveland Heights, Ohio, by P. C. Packer, H. W. Anderson, and L. J. Brueckner. 39 pp.

A School Building Program for Meriden, Conn., by A. B. Fernandez. U. S. Bureau of Education, Bulletin, 1920, No. 22. 26 pp.

A School Building Program for Gloucester, Mass., by the United States Bureau of Education. Bulletin, 1920, No. 23, 16 pp. See also School Report of Gloucester, Mass., 1920, pp. 32-50, for the report of the survey of school buildings made by the State board of education through C. D. Kingsley and B. F. Jones.

A School Building Program for Athens, Ga., by A. B. Fernandez, of the Bureau of Education (Bulletin, 1921, No. 25, 97 pp.), plans for the school needs of an old community which has been changing from an educational center to an industrial city; and, in advancing the work-study-play plan, presents an extensive analysis of both the old and the new plan, showing the special values, economies, and the educational enrichments of the latter. The school needs of both the white and the colored population are noted in detail. The comparison of Athens with 44 other cities results in a clear indication of the city's adequate financial resources to carry out the permanent building program proposed.

A School Building Survey and Schoolhousing Program for Napa, Calif., Produced by Graduate Students in Educational Administration. Education, 249. Directed by F. W. Hart. 64 pp.

A School Building Survey and Schoolhousing Program for San Rafael, Calif., by the Department of Education, University of California. Directed by F. W. Hart and L. H. Peterson, Assisted by a Group of 22 Graduate Students in Educational Administration, Education, 249. 70 pp.

The arrangement involved in this study in the spring of 1922, leading to the report of A School Building Program for the City of Winona, Minn. (University of Minnesota, December, 1922, 66 pp.), conducted by M. G. Neale and S. B. Severson, and five assistants, shows an interesting forward step taken by a State university in cooperation with a particular community whereby it makes available to such local communities the most expert service which the university can provide, a service which none of these school systems could provide directly for itself. Upon the request to the college of education to make the survey, the board of regents of the university agreed to release members of its staff from active service for such of their time as would be required to make the survey and carry through the project on the condition, proposed by the Winona Board of Education, of paying "for the time of Professor Neale and such other persons as would be required to carry the survey through and to meet all expenses incident to the making of the survey." The present usual technique is applied in detailing the proposed building program for this city up to 1940, and in revealing the financial ability to carry it forward. Under similar arrangements, the college of education of this institution is conducting other surveys in this State.

A Study of the Public Schools of Harrisburg, Pa., and Recommendations for a Building Program, by F. E. Spaulding, as made to a Joint Conference of Civic Organizations, June, 1922. 30 pp.

In helping communities to solve their respective building and financial problems relating to the school plant, these surveys uniformly indicate how contributions toward extending the instructional opportunities for children may be made. Two types of reorganization are utilized for this purpose: Grade reorganization, so as to provide for the intermediate or junior high school; and, reorganization of the traditional grade type into the work-study-play plan. In several instances of the latter type the recommendations show an actual

economy of about 40 per cent in capital outlay in providing the new facilities of modern standards.

Other instances illustrative of how community and professional interests in educational problems and changes may express themselves are found in the following:

Arithmetic Survey (Monograph No. 3, 1919, 30 pp.), and Spelling Survey (Monograph No. 7, 1920, Newark, N. J., 32 pp.), under the direction of Asst. Supt. E. M. Sexton, are additional evidences of what a department of reference and research in a public-school system may contribute toward a progressive program in instruction.

A Survey of Pupils in the Schools of Bakersfield, Calif., reported by J. H. Williams (Whittier State School, Calif., Bulletin No. 9, June, 1920, 43 pp.), was undertaken "to secure data particularly relating to the distribution and location of pupils in need of special instruction, and to introduce the test method of classification and promotion." Teacher judgments are checked against standard tests. New tests in geography and in temperament were introduced.

A record of progress in the theory and practice of educational administration, by a comparison and evaluation of reports of 19 city surveys, is shown by W. S. Deffenbaugh in *The School Board in City School Survey Reports*, Amer. Sch. Bd. Jour., 61: 23-26, August, 1920; and, also, Bu. of Educ., City Sch. Leaflet, No. 8, 15 pp, September, 1922.

Comparative Results in Intermediate and Elementary Schools at Los Angeles, by T. H. Briggs, Jour. of Educ. Res., 2: 681-692, November, 1920, throws new light upon the results obtained by some efforts at educational reorganization.

How surveying procedure facilitates the segregation of special problems and efforts toward the solution of them is further illustrated by these studies:

A Survey of Commercial Education in the Public High Schools of the United States, by L. S. Lyon, Supp. Educ. Mon., Whole No. 12, University of Chicago, September, 1919, 59 pp., based upon the questionnaire plan of securing data.

The Problem of Adult Education in Passaic, N. J., by A. B. Fernandez, of the Bureau of Education, Bulletin, 1920, No. 4, 26 pp., has its solution suggested along the lines of the specific treatment recommended.

The Survey of the Writing Vocabularies of Public-School Children in Connecticut, by W. F. Tidyman, Bureau of Education, Teacher's Leaflet, No. 15, November, 1921, 18 pp., presents the spelling situation as of 1917-18 in this State, and, as a result of a new device in sorting the numerous words appearing in compositions, adds a list of 3,000 commonest words, arrayed in grade distribution, third to ninth grades, inclusive.

Various modes of ascertaining and judging the variations in the intelligence in school groups, casually appearing in some of the more general surveys, characterize some special studies:

An Intelligence Survey of a Typical Town School (Wapello, Iowa), by R. H. Sylvester. Ped. Sem., 26: 365-71, December, 1919.

A Survey of the Three First Grades of the Horace Mann School by Means of Psychological Tests and Teachers' Estimates, and a Statistical Evaluation of the Measures Employed, by C. F. and L. M. Chassell. Jour. of Educ. Psych., 12: 72-81, 243-252, February-May, 1921.

Mental Survey of Utah Schools and Adaptation of the Army Beta Tests, by G. S. Snoddy and G. E. Hyde. University of Utah Bulletin, vol. 12, no. 6, September, 1921. 28 pp.

The Intelligence of High-School Seniors as Revealed by a State-Wide Mental Survey of Indiana High Schools, by W. F. Book, New York, Macmillan Co., 1922. 355 pp. Made with the authority and assistance of the Indiana State Board of Education.

The Educational Survey of the Phillippi School System (April, 1922 [?] 39 pp.), by the department of education of West Virginia University, under the direction of Prof. L. V. Cavins, is chiefly a study of pupil abilities by age—grade distribution and intelligence tests and of instruction by 11 educational tests, with a resultant reclassification of pupils.

City school reports continue to show, from a publicity point of view, the excellent formative effects appearing in the type of educational literature produced by the surveys. Two reports may be cited:

Survey of the Scranton (Pa.) Public Schools, 1918–1920. 240 pp., which has more material than that usually found in a biennial report.

Seventy-Ninth Annual Report of the Superintendent of Schools, Detroit, Mich., 1921–22, 110 pp., which graphically presents a statement of growth, policy, progress, organization, buildings, finance, and statistical studies.

THE TRAINING OF TEACHERS FOR PUBLIC EDUCATION.

When the school-survey movement made its modest beginnings 12 years ago in several remote and inconspicuous systems, it found American schools long in possession of a basic philosophy which ascribed the central position in a school system to the teacher. From the first the surveys have, with increasing emphasis, been directing critical and sympathetic attention to the work of the teachers and the administrative practices which modified the conditions of possible success on their part in securing acceptable instruction. The period under review has brought forward three survey reports in this special phase of education.

Missouri.—The outcome of a chance request to the Carnegie Foundation for the Advancement of Teaching in July, 1914, by Governor Major, of Missouri, led to the publication by the surveying agent in January, 1920, of the monumental report on the professional preparation of public-school teachers, by Dr. W. S. Learned, assisted by Drs. W. C. Bagley, C. A. McMurry, G. D. Strayer, W. F. Dearborn, I. L. Kandel, and H. W. Josselyn.³³ Although limited to the problem of the preparation of Missouri teachers in normal schools, the great length of time devoted to the study enabled it to exhibit the most extensive embodiment of theory and practice in the proposals finally offered. Every known analytic device was appropriately employed in treating the related facts. The chief topics are: Government and control of Missouri normal schools; purpose of a normal school; the personnel; curricula; operation and product of the normal

³³ The Professional Preparation of Teachers for American Public Schools: A Study Based upon an Examination of Tax-Supported Normal Schools in the State of Missouri. Bulletin No. 14, New York 475 pp.

schools; and summary of proposals for the preparation of Missouri teachers in normal schools. One of the chief purposes of the report is to emphasize the need for that professional conception of ability, of knowledge, and of preparation which must characterize the teachers' equipment before the schools can become the effective agency in civilization which they aim to be.

Minnesota.—Teacher Training Departments in Minnesota High Schools, by Dr. L. D. Coffman,³⁴ presents a cross section of the situation existing, in 1915-1917, in this form of the Minnesota practice of training teachers for the country schools, a practice which had been in operation for a number of years. Consideration is given to the organization and effectiveness of these training departments, including the teachers, the students, the curriculum, instruction, administration, and finances. Although this form of training teachers appears to run counter to the policy of generalized control in American education, during the interval of the time between the study and its publication, gradual improvements had been made in the work of these departments.

Ohio.—Cooperative enterprise in the training of public-school teachers in Cleveland had made such progress in recent years as to present a group of intricate problems, a suggested solution of which was secured by a special study which contains the report and recommendations of an educational commission consisting of Drs. W. C. Bagley, J. W. Withers, and G. G. Chambers.³⁵ This commission was appointed and financed by the Cleveland Foundation at the request of the joint conference committee of the Cleveland School of Education and Western Reserve University. The work of the commission, in reviewing the more recent activities in extension courses and summer sessions conducted by the Cleveland School of Education and Western Reserve University prior to September, 1920, and other features in the situation, resulted in a recommendation of the organization of a senior teachers' college by the affiliation of the school of education and Western Reserve University. This would provide more thorough professionalization of the teaching staff, secure the advantageous connection of teachers with specialists in scholarship under university organization, and otherwise bring "into an effective cooperation with the public schools a large number of organizations that are making for civic and community betterment."

HIGHER EDUCATIONAL INSTITUTIONS.

During the period the issues in higher education have not been so markedly defined and tentatively disposed of by the special survey process. Surveys of colleges and universities may be expected to

³⁴ General Education Board. New York, 1920. 92 pp.

³⁵ The Professional Education of Teachers in Cleveland. Western Reserve University, Bulletin, March, 1922. 92 pp.

appear with less frequency in future by reason of the more stabilized organizations whose routine duties essentially function after the fashion of continuous surveys. The stress and strain which often lead to a survey will tend to appear in exceptional cases. The regional associations of colleges and secondary schools have come more and more to discharge legislative functions in "standardizing" higher institutions in their respective territories. The Carnegie Foundation for the Advancement of Teaching, the General Education Board, and the more national organizations of the several groups of higher institutions are giving constant attention to new problems and institutional situations with corrective proposals. That the higher institution, however, has not outgrown the need of being surveyed nor reached a stage where it can not benefit from survey conclusions is attested by the special studies made during the biennium.

University of Minnesota.—The first report of the university survey commission, authorized by the board of regents, in January, 1920, is a good illustration of how a higher institution proposes to keep setting its own house in order in relation to other State educational activities.³⁶ Seven other illustrative questions were proposed for study by the commission:

What in the nature of extension of grounds, construction of buildings, in the various departments and substations of the institution, if no change is made in the present 4-year period, will be required to meet the growth? Should the situation be relieved by the adoption of the principle of junior colleges to take over the work of the freshman and sophomore classes in the university? Should agricultural schools, such as the schools at Crookston and Morris, be multiplied? Should certain technical work, now done in the department of engineering and in the school of chemistry, be also taught in the junior colleges and agricultural schools? Are our professional courses too long? May not requirements for higher mathematics and other cultural things be somewhat lessened in preparation for medical degrees? What internal administrative adjustments could be made to improve and increase the amount of instruction?

Arkansas.—The wide relationships centering in higher education are again illustrated in the reports of two special studies conducted in this Commonwealth. The Report on the Higher Educational Institutions of Arkansas, by G. F. Zook, of the Bureau of Education,³⁷ contains the results of his inspection of the 13 higher institutions in the State, made at the request of the State superintendent of public instruction, in view of certain high-school regulations recently adopted by the State board of education. By September, 1923, this board "will need to know what colleges of the State may be considered as standard colleges, in order to ascertain what persons are eligible to teach in the high schools of the State."

³⁶ Report of the Survey Commission: I. The Growth of the University in the next Quarter Century. Bulletin of the University of Minnesota, June 21, 1920. 50 pp.

³⁷ U. S. Bureau of Education, Bulletin, 1922. No. 7. 18 pp.

The Educational Survey of the University of Arkansas, a digest of the report of a survey, made at the request of the joint legislative committee in charge of the survey, under the direction of the United States Commissioner of Education, was made by a commission in charge of G. F. Zook, with which was associated a group of three "advisors," the newer surveying means of strengthening the recommendations made.^{37a} Attention is given to the historical development of, and obstacles to, higher education in the State, and to the details of each school and its functions, and the resources of the institution.

Maryland.—The complications of historical origin involved in its policy of higher education in an older State appear in a presentation of the facts accumulated in a study which should concern itself "with the relation of Maryland to the six colleges and universities (white) to which the State has made appropriations for 1920 and 1921," and which "would contain no suggestions or recommendations as to policy." The work was a continuation of a study interrupted by war conditions and renewed, upon invitation of Governor Ritchie, by the General Education Board.³⁸

Colorado College.—At the suggestion of President C. A. Duniway, Dr. R. L. Kelly, with the Commission on the Distribution of Colleges as an advisory committee, of the Association of American Colleges, undertook, with the staff of the Council of Church Boards of Education, the investigation published under the title, *Colorado College: A Study in Higher Education* (May, 1922). With the State as a background, the material is arranged under these headings: Present educational geography; environmental background of education; foundation of higher education; higher educational structure; Colorado College; denominational and independent education; summary.

It is believed the study contributes something to the functional evaluation of the institutions concerned. It certainly demonstrates that it is quite impossible for any single type of institution to meet the needs for higher education of the ambitious young men and women of this State or section of the country.

The studies of the Association of American Colleges, on the organization of the college curriculum, and certain measured features of college curricula in 38 institutions, appearing in its bulletins for March and December, 1921, are useful in revealing tendencies apparent in collegiate instruction only from a comparative overview.

University of Arizona.—The Report of a Survey of the University of Arizona, made in February-March, 1922, under the direction of the United States Commissioner of Education (Bul., 1922, No. 36, 89 pp.), had the advantage of noting the progress made by this institution since the first survey (unpublished) conducted by the bureau in 1917.

^{37a} Educational Survey of the University of Arkansas: Summary of Conclusions and Recommendations. U. S. Bureau of Education, Aug. 31, 1921. 43 pp.

³⁸ State-Aided Colleges in Maryland: Report to the Governor of Maryland, Oct. 4, 1921. 59 pp.

The committee, including Drs. G. F. Zook, P. R. Kolbe, and Mr. L. E. Blanch, made "a survey of the general educational and financial efficiency of the university, with emphasis on the business and financial condition and administration of the institution," including special attention to the budget for the ensuing year.

In advising the people of the Commonwealth that the institution has now become "a real State university," the report details its findings on these topics: The University of Arizona, the State, and the Federal Government; organization of the university; internal administration; the faculty; students and standards; income, expenditures, and costs.

The limitations of past surveys and a description of new survey objectives appear in an address by Dr. S. P. Capen before the National Association of State Universities, November 13, 1920, on "A national survey of State universities—How should it be undertaken?"³⁹

A thoroughly satisfactory survey has never been made, * * * satisfactory from the scientific and educational point of view; one which represents a complete inventory of the university in its varied relationships, and which offers a sane and stimulating program for future development.

FOREIGN SURVEY.

A report on education in Africa,⁴⁰ prepared by T. J. Jones, is a record of what is probably the most unique survey yet undertaken. Sensing the facts that missionary enterprise in Africa had "long felt the need of a thorough survey of conditions there with a view to making their efforts more effective on the educational side," and that postwar conditions could not escape influencing educational policies in Africa, the Phelps-Stokes Fund capitalized its previous experience in the survey of Negro education in the United States, and provided for a commission to make a first-hand study of education in Africa. The survey was further made possible by the cooperation of the European Governments in control of African territory and of European missionary societies concerned with Africa, as well as that of seven American mission boards. The commission was made representative, including men and women, European, African, and American, and conducted its activities through three years, the first to general preparation, a second to the field work (September 4, 1920, to August 2, 1921), and a third to the preparation of the report. The geographic scope of the survey is shown by the topics contained in the report: Africa and education, adaptations of education, organization and supervision, education of the masses and of native leader-

³⁹ Educational Record, January, 1921. pp. 20-28.

⁴⁰ Education in Africa: A study of West, South, and Equatorial Africa by the African Education Commission, under the Auspices of the Phelps-Stokes Fund and Foreign Mission Societies of North America and Europe. New York, Phelps-Stokes Fund [1922]. 317 pp.

ship, cooperation for the education of Africans, Sierra Leone, the Gold Coast, Nigeria, British South Africa, Angola, Belgian Congo, and Liberia.

It is our hope that this study may become a textbook for missionary candidates and missionaries working in fields other than Africa. The principles set forth may be applied in any other field, and it will be a great day for missionary education when the conception of adaptation in education is understood and put into practice everywhere, for these principles are universal in application.

UNPUBLISHED SURVEYS.

Surveys conducted by the Bureau of Education: Trenton, N. J.; Colorado Springs, Colo.; Raleigh, N. C.; Washington, D. C.; Washington, N. C.; Parkersburg, W. Va.

Surveys conducted by the State department of education, New York: Elmira, N. Y.; Whitehall, N. Y.; Saratoga, N. Y.; Amsterdam, N. Y.; Schenectady, N. Y.



